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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/541,327

06/30/2005

Haruhiko Shimizu

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EXAMINER

NGUYEN, HANH N

ART UNIT

PAPER NUMBER

2834

MAIL DATE

DELIVERY MODE

06/11/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/541,327

**Applicant(s)**

SHIMIZU ET AL.

**Examiner**

Nguyen N. Hanh

**Art Unit**

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on RCE filed 4/25/07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Torok (us 6,127,764) in view of Chiaki (JP 55-086361) and further in view of Takahashi et al (US 6,557,239).

Regarding claim 1, Torok discloses a rotor for a permanent magnet type motor, comprising: a rotor yoke (12 in Figs. 1 and 2) having stacked structure; a permanent magnet (16) connected on an outer radial peripheral surface of the rotor yoke. Torok fails to show a metal film which is disposed between the rotor yoke and the permanent magnet, wherein the rotor yoke and the permanent magnet are subjected to beam welding at least a portion of a periphery of a contact surface between the permanent magnet and the rotor yoke.

However, Chiaki discloses a rotor structure wherein a metal film (5, 7) which is disposed between the rotor yoke and the permanent magnet, wherein the rotor yoke and the permanent magnet are subjected to welding at least a portion of a contact surface between the permanent magnet and the rotor yoke for the purpose of decreasing assembling man-hours (Abstract).

Moreover, Takahashi et al. disclose a motor structure wherein the ends of the conductors are welded by means of TIG welding, brazing, resistance welding, electron beam welding, laser welding or soldering (Col. 5, lines 23-28) for the purpose of providing an improved method of manufacturing (Col. 1, lines 65-66).

Since Torok, Chiaki and Takahashi et al. are in the same field of endeavor, the purpose disclosed by Chiaki and Takahashi et al. would have been recognized in the pertinent art of Torok.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify Torok by using a metal film which is disposed between the rotor yoke and the permanent magnet, wherein the rotor yoke and the permanent magnet are subjected to beam welding at least a portion of a periphery of a contact surface between the permanent magnet and the rotor yoke as taught by Chiaki and Takahashi et al. for the purpose of providing an improved method of manufacturing.

Moreover, the method of forming the device is not germane to the issue of patentability of the device itself. Therefore, this limitation (beam welding) has not been given patentable weight.

Regarding claim 2, Chiaki also discloses a rotor for a permanent magnet type motor wherein the rotor yoke and the permanent magnet are subjected to the welding (the method of forming the device is not germane to the issue of patentability of the device itself. Therefore, the limitation "beam" welding has not been given patentable

weight) an entire periphery of the contact surface between the permanent magnet and the rotor yoke (Fig. 5).

Regarding claim 3, Chiaki discloses the claimed invention except for showing a rotor for a permanent magnet type motor wherein the metal film has a thickness of 25 to 90  $\mu\text{m}$ . It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a metal film with a thickness of 25 to 90  $\mu\text{m}$ , since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Regarding claim 4, Chiaki also discloses a rotor for a permanent magnet type motor wherein the metal film (5) contains at least one of nickel and Copper (Abstract).

Regarding claim 6, Torok also discloses a motor structure wherein the rotor yoke has a stacked structure (Fig. 2)

2. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chiaki (JP 55-086361) in view of Takahashi et al. and further in view of Emoto.

Regarding claim 5, Torok, Chiaki and Takahashi et al. disclose the invention except for showing the rotor for a permanent magnet type motor wherein the metal film has a nickel film composed of nickel.

However, Emoto discloses a motor structure wherein the metal film has a nickel film composed of nickel (Col. 5, lines 15-20) for the purpose of preventing adverse effect of a magnetic circuit.

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Since Torok, Chiaki, Takahashi et al. and Emoto are in the same field of endeavor, the purpose disclosed by Emoto would have been recognized in the pertinent art of Torok, Chiaki and Takahashi et al.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify Torok, Chiaki and Takahashi et al. by using the metal film has a nickel film composed of nickel as taught by Emoto for the purpose of preventing adversely effect of a magnetic circuit.

### ***Conclusion***

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh N Nguyen whose telephone number is (571) 272-2031. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg, can be reached on (571) 272-2044. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications and (571) 273-8300 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

HNN

June 7, 2007

